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W. G. KEITH ET AL
SIGNAL AND LIGHTING UNIT

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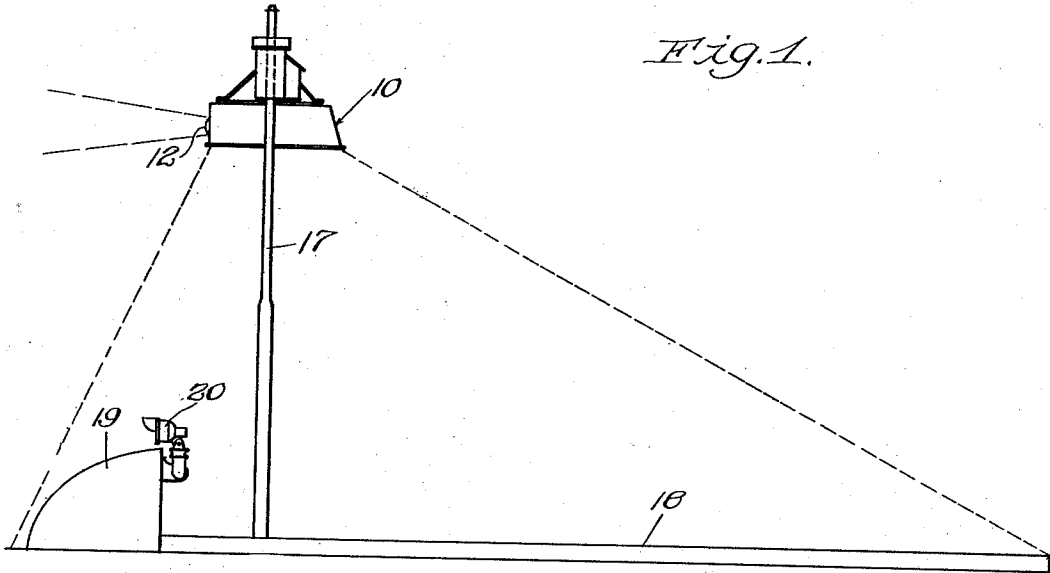


Fig. 1.

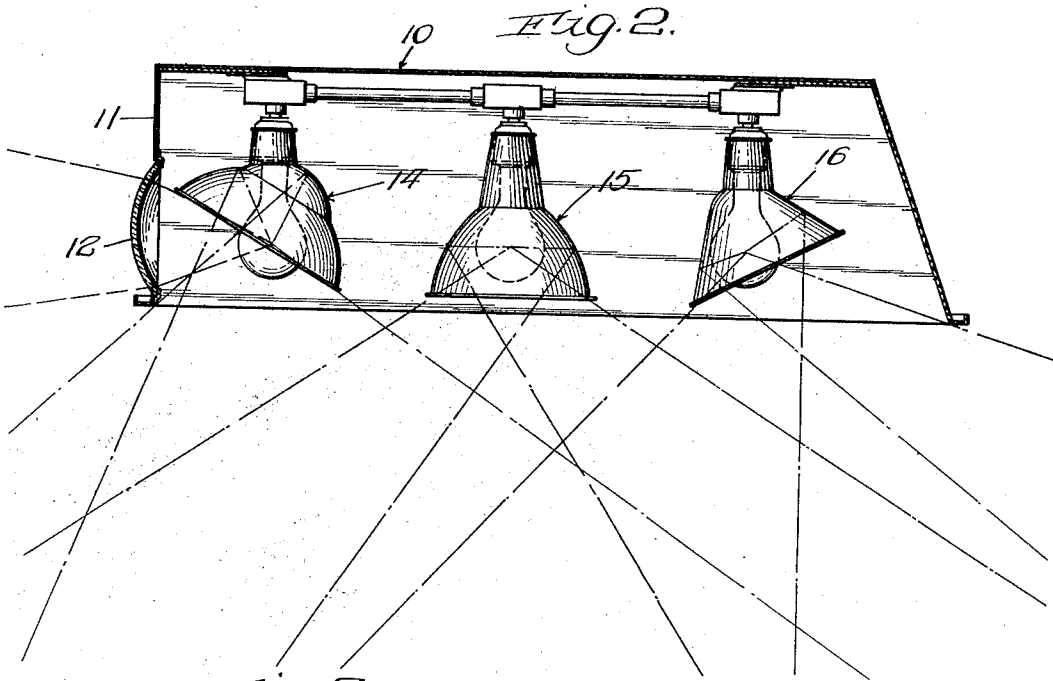


Fig. 2.

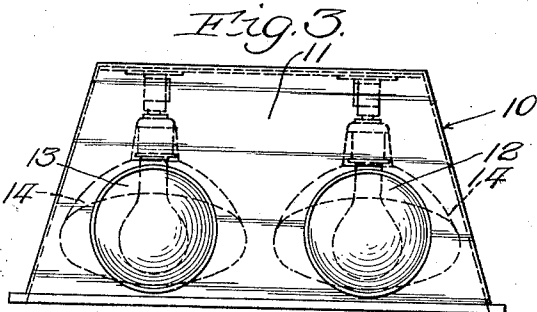


Fig. 3.

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SIGNAL AND LIGHTING UNIT

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3 Claims. (Cl. 240—2)

This invention relates to a signal and lighting unit and has special reference to a unit for directing a flood of light on a loading zone platform or other substructure and for illuminating a signal for warning a cautious approach to the platform.

More particularly, this invention has reference to a reflector housing for enclosing and supporting a plurality of individual reflectors set at various angles for effecting a wide angle of light distribution over an area which, for example, may be restricted to the use of passengers of public conveyances, the housing having glass lenses or other signal means permitting the passage of light therethrough for warning drivers of private vehicles to approach cautiously.

With the steady increase of the number of private motor vehicles on the streets, provision has been made in many instances, particularly on those streets over which public conveyances are run, to provide safety zones for pedestrians and those wishing to board such conveyances. During the daytime, platforms or such markers as would indicate these safety areas are plainly visible to the eye but at night-time, it is very desirable to illuminate these zones and warn of the approach thereto. One form of loading zone which has been illustrated in the drawing comprises a raised platform guarded at the front end thereof by a bulkhead or heavy specially designed mass for deflecting the course of a vehicle in a direction away from the platform.

The present invention contemplates the illumination of the platform and bulkhead of the loading zone and the provision of illuminated signals to warn drivers of vehicles to approach the zone cautiously by means of a housing located above the platform and bulkhead having reflectors set at various angles to direct the rays of light emitting therefrom.

Other objects and advantages of this invention will hereinafter be more fully described and for a more complete understanding of the characteristic features of this invention reference may now be had to the following description when taken together with the accompanying drawing, in which latter:

Figure 1 is a side elevational view of the device embodying this invention in use as a signal and flood light for a loading zone;

Fig. 2 is a central longitudinal sectional view of the signal and lighting unit of Figure 1; and

Fig. 3 is an end elevational view of the device shown in Fig. 2.

Referring now more particularly to the draw-

ing, the device of this invention comprises a reflector housing 10 preferably in the form of an elongated rectangular inverted pan providing a bottom open face. The housing is preferably formed of galvanized iron or other sheet metal, although, of course, it is to be understood that the specific material may be replaced as desired since the same may be cast or otherwise formed of any suitable material. The housing preferably has tapered sides with the exception of the front end 11 since the housing acts not only to encase the light fixtures but also acts to assist in reflecting the light rays therefrom over a restricted area. In this connection, it will be noted that it may be desirable to paint or enamel with porcelain or otherwise provide a reflecting surface on the inside of the housing in order to effect a maximum reflection of light.

The front end 11 of the housing is provided with apertures for receiving lenses 12 and 13 which permit the passage of light therethrough. In order that these lenses be permitted to direct the light directly forwardly toward an approaching vehicle, the front end 11 of the housing is preferably formed perpendicularly to the plane of the open face and the top of the housing.

A plurality of pairs of reflectors 14, 15 and 16 are provided in the housing and are preferably formed of porcelain enamelled steel connected by means of nipples to suitable outlet boxes supported from the top of the housing. The outlet boxes are interconnected by conduits for enclosing suitable wires electrically connecting the lamps in each of the reflectors.

It is noted that the reflectors 14, 15 and 16 are preferably provided in the housing in pairs and this is desirable for the reason that but one lamp of each pair is lighted during the operation of the device and should one or more of these lights burn out or otherwise go out of use then either automatically or otherwise the other of each of the pairs of lamps is electrically connected in circuit for use. When one set of lamps is in use the other set is merely held in reserve for use when an emergency develops such as the burning out of one or more of the lamps in one of the groups.

Each of the pair of reflectors 14 is disposed at an angle at the forward end of the housing adjacent the lens 12 or 13. The reflector is preferably of a type having one parabolic surface intersecting a second parabolic surface. The angularity of the reflector is such that a portion of the light from the lamp in the reflector is reflected through the lens and the remaining

light from the lamp in the reflector is deflected downwardly and forwardly out of the open face of the housing 10.

Each of the pair of reflectors 16 is disposed angularly adjacent the rear end of the housing for deflecting the light downwardly and rearwardly through the open face. One or more pairs of reflectors 15 are disposed intermediate the reflectors 14 and 16 for deflecting the light downwardly.

The housing of this invention is preferably disposed adjacent the top of a pole 17 to receive its source of electrical energy from the power line of a public conveyance, although, it is, of course, to be understood that this is merely for the purpose of illustration and that the power line could be extended upwardly through the pole from a system of underground wiring through conduits, depending, of course, upon the type of public conveyance for which the light is employed.

The particular representation shown in the drawing comprises a loading platform 18 which is preferably elongated and has a raised portion 19 at the front end thereof designed to deflect the course of a vehicle in a direction away from the platform. The raised portion 19 is in the form of a bulkhead which is tapered upwardly from the base to a meeting point or is rounded gracefully, the base of the bulkhead being substantially the width of the platform and tapering forwardly likewise to a meeting point. Signal lamps 20 are preferably provided and are disposed on the bulkhead and are preferably of the flashing type to attract attention to the bulkhead.

The housing 10 through means of the reflector 14 deflects the light forwardly over the bulkhead 19 and also deflects a portion of the light through the lens 12 or 13. The rear reflector 16 directs the rays of light downwardly and rearwardly to the far end of the platform and the intermediate reflectors deflect rays of light on an intermediate portion of the platform.

The provision of a housing having a plurality of individual reflectors set at various angles, as above described, effects a wide angle of light distribution over an area which, for example, may be restricted to the use of passengers of public conveyances, the passengers awaiting the arrival of the public conveyance on an elongated platform. The platform is provided with a massive bulkhead which is designed to deflect the course of a vehicle away from the platform, the bulkhead likewise being illuminated by the light reflecting from the housing. The housing is also

provided with a signal means for warning the drivers of vehicles to approach the loading platform cautiously. An effective measure of safety is thus provided for pedestrians wishing to board public conveyances in that a sufficiently illuminated area is provided on which they may be readily seen and thus safeguarded.

While but a single embodiment of this invention is herein shown and described, it is to be understood that various modifications thereof may be apparent to those skilled in the art without departing from the spirit and scope of this invention and, therefore, the same is only to be limited by the scope of the prior art and the appended claims.

We claim:

1. A device of the character described for directing a flood of light on a loading zone or other substructure and for warning an approach to said zone comprising an elongated housing having an open lower face, signal means in one closed end of said housing for permitting the passage of light therethrough, a fixed reflector disposed at an angle to direct rays of light in a direction downwardly and toward one end of said housing for illuminating said signal means, a reflector fixedly disposed at an angle to direct rays of light in a direction downwardly and toward the other end of said housing, and at least one intermediately and fixedly disposed reflector for directing rays of light downwardly, all of said reflectors being supported in said housing.

2. In a device of the character described, an elongated housing having an open face, a lens disposed in an opening in one end of said housing, a reflector fixedly disposed at an angle at the forward end of said housing to deflect light through said lens and forwardly through said open face, and a reflector fixedly disposed at an angle at the rear end of said housing for deflecting light downwardly and rearwardly through said open face.

3. In a device of the character described, an elongated housing having an open bottom face, signal means in the forward end of said housing, reflectors fixedly disposed angularly adjacent said signal means in said housing for the illumination thereof and for deflecting light forwardly through said open face, reflectors fixedly disposed angularly adjacent the rear end of said housing for deflecting light downwardly and rearwardly through said open face, and intermediately disposed reflectors for deflecting light directly downwardly.

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